

CHAPTER VI.

TRADE.

I.—COMMUNICATIONS.

Chapter VI.

Trade.

Roads.

1820.

IN 1820 so liable were almost all villages to be cut off for weeks together by swollen streams and flooded rivers that before the rains the people were forced to lay in a four or five months' store of provisions.¹ In 1826 Captain Clunes noticed that five main lines of road centred at Belgaum.² Two went north to Poona, one went north-east to Kaládgi and Sholápur, one went south-east to Dhárwár, and one went west to Goa and Vengurla in Ratnágiri. Of the two Belgaum-Poona roads, one, after passing about sixty miles through Kungarli, Yamkanmardi, Hukeri, and Chikodi, left the district at Gokarvádi in Chikodi. It then crossed Kolhápúr and Sátára till it reached Poona after a further distance of about 150 miles. The second Belgaum-Poona road was 241 miles long. Of the whole length seventy-eight miles lay within Belgaum, passing through Kalkumbe, Marihal, Konur, Nagarmanoli, Kerur, and Sidápurhatti. It left the district at Kágvád about twenty-four miles west of Athni, and beyond Kágvád passed through Tásgaon and Koregaon in Sátára to Poona. From this second Belgaum-Poona road two lines branched, one to the north-west the other to the north-east. The north-west branch had a length of 128 miles of which about eight lay within Belgaum limits. It started from Sidápurhatti about ten miles north-east of Athni, and reached Karád in Sátára through Miraj. The north-east branch had a length of 191 miles, of which about twenty-six lay within Belgaum limits. It started from Konur about eight miles north-west of Gokák and reached Sholápur through Bijápur. The Belgaum-Sholápur road in the north-east for the first thirteen miles formed part of the Belgaum-Poona road which left the district at Kágvád. From Marihal the road passed east for about twenty-five miles when it left the district near Manikori. It then for about thirty miles crossed the Mudhol state to Kaládgi. From Kaládgi it went north for about 135 miles through Bijápur to Sholápur. From Guchan-Kurbet on this line, about three miles north of Gokák, a road of about 150 miles, of which about seventeen lay within Belgaum limits, branched north to Sholápur through Jamkhandi and Bijápur. The Belgaum-Dhárwár road of about fifty miles formed part of the Belgaum-Bellári road and the Belgaum-Harihar road. From Belgaum a road ran west for about twenty-five miles, passing through Sinoli, Turakvádi, and Kálánandigad,

¹ Marshall's Statistical Reports, 64.² Clunes' Itinerary, 32-34, 68-73.

and after descending the Rám pass reached Kudási in Sávantrádi. At Kudási it divided in two, one branch about thirty miles long passing north-west to Vengurla, the other of twenty miles passing south-west to Goa. Few if any of these roads were in good order.

In 1829 the roads joining the district with the coast were described as wretched tracts unworthy of the name of roads.¹ After 1829 for upwards of fifteen years little seems to have been done to improve the roads. Early in 1847 the Collector, Mr. J. D. Inverarity, brought to notice the injury which the cotton trade suffered from want of roads and bridges. In 1848, Mr. Townshend, the Revenue Commissioner, urged the necessity of improving the communications with the coast. The badness of the roads added seventeen to twenty per cent to the cost of carrying Belgaum cotton to Bombay.² In the same year, when Government made liberal concessions with the object of improving Belgaum cotton, one of the Members of Council, the late Mr. L. R. Reid, urged the necessity of supplementing the concessions by opening either railways or roads which would be passable at all seasons. In 1849, the Bombay Chamber of Commerce urged that good roads and railways should be made from the cotton districts to the coast and to Bombay, as until communications were improved it was impossible to establish up-country agencies.³ Lord Falkland, the Governor of Bombay, (1848-1853) in recording the Chamber's recommendations recognized the importance of their advice. He regretted that funds were not available to carry out the improvements which Government had so much at heart. The Court of Directors expressed the hope that at no distant period they would be able to sanction the expenditure needed for improved communications. Shortly after this the Collector again urged on Government the necessity for improving the roads. But want of funds prevented Government doing anything beyond making a road through the Phonda pass to Vijayadurg in Ratnágiri. In 1850 the Dhárwár-Belgaum road was unfit for traffic as it was unbridged and as the Malprabha sometimes rose to a great height. During the rains carts could pass the river only at intervals sometimes of a fortnight. When the river was fordable the carts had to be dragged through the stream by two bullocks when unloaded and by four to six bullocks when loaded. There were generally about a dozen men shoulder-deep in water round each cart helping to turn the wheels and urging the frightened bullocks. The height of the wheels prevented much damage; still in some cases grain was considerably injured by the water.⁴ Since 1864 the local funds system has placed increased means for constructing and improving roads in the hands of the Commissioner and Collector. Communications have been greatly improved. During the 1876-77 famine, many new roads were opened and many old roads were improved as relief works.

At present (1883), of forty-six roads, varying from a few furlongs to seventy-eight miles, one is Imperial, five are provincial, and forty

Chapter VI.

Trade.

Roads.

1829-1877.

1883.

¹ Walton's Cotton, 8. ² Walton's Cotton, 164. ³ Walton's Cotton, 165.

⁴ Mackay's Western India, 393.

Chapter VI.

Trade.

Roads.

1883.

are under local funds management. The total length represented by these roads is 792 miles, being twenty-nine of Imperial, 266 of provincial, and 497 of local funds roads. Yearly repairs cost on the Imperial roads about £800 (Rs. 8000), on the provincial roads about £9300 (Rs. 93,000), and on the local funds roads about £2550 (Rs. 25,500). The Imperial roads are the roads in the cantonment of Belgaum. Of the five provincial roads the first of seventy-six miles is part of the Poona-Harihar trunk road. This enters the district at Kaṅgoli about twenty miles north-west of Chikodi, and passing through Nipáni, Sankeshvar, Yamkanmardi, Kákti, Belgaum, Bágevádi, and Kittur, leaves the district about four miles south-east of Kittur. It is metalled and bridged throughout, and has a large cart traffic during the fair months chiefly in grain and tobacco. The cost of making the road is estimated at £120,000 (Rs. 12,00,000). Of the second provincial road from Kaládgi to Vengurla there are two sections, one of seventy-eight miles west of Belgaum to Vengurla by the Ámboli pass of which thirty-one miles are within Belgaum limits and the rest are in Sávantvádi in Ratnágiri, the other section of seventy-three miles stretches east from Belgaum to Kaládgi, forty-two miles of it lying within the district. The western or Ámboli pass section, which is bridged and metalled throughout, was made in 1871 at a cost of about £140,000 (Rs. 14,00,000). During the fair season, when the port of Vengurla is open, a heavy cart traffic passes along this line. The whole line from Belgaum to Vengurla is repaired by the Executive Engineers of Belgaum and Kolhápúr. The eastern or south Bijápúr section is metalled and drained for the first fifteen miles only. It is a fair road thirty-six miles to Yargatti. Beyond Yargatti parts of it in black soil are almost impassable during the rains. Even in the fair weather the steep banks of many of the streams make it somewhat difficult for carts. In the dry season the cart traffic, especially in cotton, is heavy. The third road of about fifty miles starts from Dhárwár west to Lingamat about twenty miles south-east of Khánápúr and runs through the southern part of the Khánápúr sub-division to the Tinai pass in Kánara. This road, which is under the Executive Engineer of Dhárwár, is partly bridged and is in fair order for cart traffic all the year round. The fourth road of forty miles runs south to Khánápúr and from Khánápúr south-west to Bidí till it meets the Dhárwár and Tinai pass road at Lingamat. It has a few drains but no bridges and is passable for carts all the year round. The fifth road is of seventeen miles from Khánápúr south to Sitavda on the Dhárwár-Tinai pass road beyond which the line runs to Supa in Kánara. This is passable for carts at all seasons. Of the local funds slightly repaired roads, which are mostly fair-weather tracks, there are four of some importance, the old Poona-Belgaum road, the Kolhápúr-Bijápúr road, the Sankeshvar-Yádvád road, and the Gokák-Nargund road. The old Poona-Belgaum road enters the district at Kágvád, and passing through Mánjri, Akhli, Chikodi, Vudurhal, and Kamatmur, joins the new or mail road at Gotur. This is the old mail road to Sátára by Tásgaon which was used before the Kolhápúr route was opened. It is partly drained, but the larger streams are unbridged and the old metal is disappearing.

Though now merely a local road it has considerable cart traffic, especially north of the Krishna at Mánjri. During the monsoon, for six or seven miles north of Mánjri, the road is almost impassable owing to its deep black soil and to the widespreading floods of the Krishna. The Kolhápur-Bijápur road, of 106 miles, crosses the Athni sub-division from west to east, and passes through the towns of Berag, Kempvád, Athni, Aigal, and Telsang. In the fair season this road has a good deal of cart traffic, but during the rains many portions of it in black soil are almost impassable. The Sankeshvar-Yádvád road, forty-eight miles long, runs east and west through Chikodi and Gokák, passing Hukeri, Guras, Arbhavi, Vadurhátti, Musgupi, and Kulgod, to Yádvád. It has some cart traffic in the fair weather, but during the rains parts of it in black soil are almost impassable. A line, thirty-six miles long, running south from Athni, passes through Darur, Terdal, Kankanvádi, Kalloli, and Arbhavi on the Sankeshvar-Yádvád road to Gokák. From Gokák it stretches south-east through Yargati on the Belgaum-Kaládgi road and Manoli, and, after crossing the Malprabha, runs through Sindogi and Halikati to Nargund in Dhárvár. Part of this road between Arbhavi and Yargatti is sandy and stony and difficult for carts. Beyond Yargatti, though not bridged, the road is at all seasons passable for carts and gives easy access to the market town of Manoli. Besides these four main lines of local funds roads there are several smaller lines and country tracks. From Athni, besides the roads already noticed, six lines radiate, one north towards Balgeri, one north-east towards Kanmari, one south-east with a branch at Nándgaon leading to Kokatnúr, one south joining the Athni-Gokák line at Terdal, one south-west joining the old Belgaum-Poona road at Kágvád, and one north-west to Belanki. Besides the main road three lines centre at Chikodi, one from Kankanvádi on the Athni-Gokák line in the east, one from Kurundvád in the north which after passing south and crossing the Poona-Belgaum road at Yamkanmardi ends at Daddi, and one from Nipáni in the west. A line from Kurundvád passes through Borgaon and joins the Poona-Harihar road at Savdalgi in Chikodi. Other roads run from Yádvád twenty miles to Yargatti on the Belgaum-Kaládgi road in Parasgad; from Arbhavi in Gokák thirty miles to Modga on the Belgaum main line; from Bágevádi on the mail road in Belgaum twenty miles to Murgod in Parasgad; from Hongal through Kittur twenty-five miles to Bidi; from Belgaum twenty-nine miles to the Rám pass; from Hulki on the Belgaum-Kaládgi road eighteen miles to Sindogi and Murgod and Saundatti in Parasgad; a road from Macha on the Belgaum-Khánápur road twenty-six miles running through Jámboti to Kankumbi, where it splits, one branch leading six miles to the Mangeli pass and the other seven miles to the Chorle pass; from Jámboti to Khánápur-ten miles; and from Khánápur to the Kel pass twenty-two miles.

Across the Sahyádris, within Belgaum limits or on the main lines between Belgaum and the sea, are eight chief passes of which three are crossed by roads fit for carts. Beginning from the north and working south these are the Ámboli or Párpoli Pass on the Belgaum-Vengurla road in the Sávantvádi state forty-three miles west of

Chapter VI.

Trade.

Roads.

1883.

Passes.

Chapter VI.

Trade.

Passes.

Belgaum. It is an excellent pass nine and a half miles long with an easy gradient. It is bridged, drained, and metalled throughout, and in the fair season has a very great cart traffic. The RÁM Pass lies about thirty miles west of Belgaum on the old Belgaum-Vengurla road. In 1826 it was the great pass to the upper country from Sávantvádi, Málvan, Vengurla, and Goa. The approach to the pass, both above and below, was a made road, and the ascent was easy and passable for every sort of wheeled carriage. The tract of country below was wild, hilly, and covered with large trees, clumps of bamboos, and thick underwood with partial tillage in the valleys. Since the opening of the Ámboli pass road in 1871, the Rám pass has been abandoned and cannot now (1883) be used by loaded carts. It is little frequented except by traders from Goa and by Vanjári bullocks taking salt from the coast and bringing grain from inland. About twelve miles south of the Rám pass and about twenty-five miles south-west of Belgaum is the CHORLE Pass on the road between Sánkhalí to Kankumbi. It is a mere foot-track though it can be used with difficulty by bullocks carrying salt. A mile or two to the south-east of Chorle is the PÁRVA Pass, and about eight miles south-east of the Párva pass is the KEL Pass on the road which starts from Khánápur and runs south through Heneghe. Both the Párva and Kel passes are, like the Chorle pass, fit for foot passengers and with difficulty for cattle. About twelve miles south-east of the Kel pass is the TÁMERI Pass, a mere foot-path. About twelve miles south-east of the Támeri pass is the TINÁI Pass. In the actual descent the road is well suited for carts, but immediately below, in the Goa territory, it is almost impassable with axle-deep ruts. The section in British territory is under the care of the Executive Engineer of Dhárwár.

Bridges.

There are six large bridges, three of stone and three of iron. The three stone bridges are on the Poona-Harihar road. One with seven forty-five feet spans is across the Vedganga in the 165th mile from Poona, the second is over the Harankási in the 187th mile, and the third is across the Ghatprabha in the 197th mile. The three iron bridges are on the Belgaum-Ámboli pass road. One, the Senavli bridge, in the seventh mile from Belgaum, has one Warren girder of sixty feet span and two plate girders each of thirty feet span; a second across the Kálánadi in the seventeenth mile has three Warren girders each of sixty feet span; and the third in the thirtieth mile across the Ghatprabha has two Warren girders each of sixty feet.

Tolls.

Of twenty toll-bars eleven are on provincial and nine are on local funds roads. Of the provincial toll-bars four, at Tábultvádi and Kanur on the Belgaum-Vengurla road, at Kudchi on the Belgaum-Kaládgi road, and at Desur on the Belgaum-Linganmut road, are in the Belgaum sub-division; two, at Sidanbhavi and Timápur on the Belgaum-Harihar mail road, are in Sampgaon; one, at Bidi on the Belgaum-Linganmut road, is in Khánápur; three, at Sutgatti, Sankeshvar, and Savdalgi, are on the Poona-Harihar mail road in Chikodi; and one, at Halki on the Belgaum-Kaládgi road is in Parasgad. Of the nine tolls on the local funds

roads, two, at Turkevádi and Vaghotre on the Belgaum-Vengurla road across the Rám pass, are in Belgaum; two, at Chorle on the road from Belgaum to the Chorle pass and at Talevádi on the Khánápur-Talevádi road, are in Khánápur; one is at Chikodi on the Sutgatti-Chikodi road; one is at Vatnal on the Gokák-Saundatti road in Parasgad; two are at Tigdi and Gudas, both on the Sankeshvar-Lokápur road in Gokák; and one is at Kágvád on the Chikodi-Kágvád road in Athni. In 1881-82 the provincial toll-bars yielded £5401 (Rs. 54,010) and the local fund toll-bars £789 (Rs. 7890).

At Hukeri on the Sankeshvar-Gokák road two mosques are kept in repair for the use of district officers, and with the same object at Saundatti, the head-quarter station of Parasgad, some rooms in the fort are kept in order. Besides these there are ten bungalows for European and forty-two rest-houses or *dharmshálás* for Native travellers. Of the travellers' bungalows, four, one each at Belgaum, Tábmbulvádi, Pundre (Kanur), and Turkevádi, are in Belgaum; three, one each at Sutgatti, Gotur, and Nipáni, are in Chikodi; two, one each at Mugutkhán-Hubli and Nesargi, are in Sampgaon; and one is at Yargatti in Parasgad. The travellers' bungalow at Belgaum, which was built at a cost of £252 (Rs. 2520) is on the Poona-Harihar mail road; it has three rooms and is kept at a yearly charge of £13 4s. (Rs. 132); the bungalow at Tábmbulvádi, which in 1869 was built from provincial funds at a cost of £726 (Rs. 7260), is on the Belgaum-Vengurla road, has two rooms, and is kept at a yearly charge of £22 16s. (Rs. 228); the bungalow at Pundre or Kanur, which in 1868 was built from provincial funds at a cost of £700 (Rs. 7000), is on the Belgaum-Vengurla road, has two rooms, and is kept at a yearly charge of £20 8s. (Rs. 204); the two-roomed bungalow at Turkevádi, which was built at a cost of £219 (Rs. 2190), is on the Belgaum-Rám pass road and is kept at a yearly charge of £8 8s. (Rs. 84). Of the three bungalows in Chikodi all are on the Poona-Harihar mail road and have two rooms. Of these the Sutgatti bungalow was built in 1848 at a cost of £290 (Rs. 2900) and has a yearly establishment at a charge of £18 (Rs. 180); the bungalows at Gutur and Nipáni were built in 1858 at a cost of £275 (Rs. 2750) each, and are kept at a yearly charge of £15 12s. (Rs. 156) each. Of the two Sampgaon bungalows the Mugutkhán-Hubli bungalow, which was built in 1839 at a cost of £321 (Rs. 3210), is on the Poona-Harihar mail road, has two rooms, and costs £18 (Rs. 180) a year to keep; and the Nesargi bungalow, which was built at a cost of £300 (Rs. 3000), is on the Belgaum-Kaládgi road, has two rooms, and costs £20 8s. (Rs. 204) a year to keep. The Yargatti bungalow in Parasgad is on the Belgaum-Kaládgi road; it has two rooms, was built at a cost of about £209 (Rs. 2090), and costs about £14 8s. (Rs. 144) a year to keep. Under the supervision of the Collector these bungalows are in the charge of a servant whose duty is to satisfy the wants of travellers. Only at the Belgaum bungalow is there a messman who has a small supply of oilman's stores, but is not licensed to sell wines and spirits. A daily fee of 2s. (Re. 1) is charged to any one using the bungalow.

Of the forty-two rest-houses or *dharmshálás* with room for ten to

Chapter VI.

Trade.

Tolls.

Rest Houses.

Chapter VI.

Trade.

Rest Houses.

150 native travellers, eight are in Belgaum, six in Sampgaon, five in Khánápur, eleven in Chikodi, seven in Parasgad, one in Gokák, and four in Athni. All are in the charge of servants paid out of local funds. They have been built from local funds since 1865 at a cost of £7 to £543 (Rs. 70-5430). The rest-houses are used free of charge and the Local Funds Committee repairs them when necessary. Except by Lingáyats who stay in monasteries or *mathas* and some others who lodge in the porches and out-houses of temples these rest-houses are used by all Native travellers.

Ferries.

No public ferries are worked throughout the year; all the rivers are fordable during the dry season. Of the thirty-eight public ferries which are worked during the rains, eight, at Ainápur, Hálihál Satti, Mahisvággi, Savadi, Shirhatti, Chik Padsalgi, and Hire Padsalgi, are on the Krishna; nine, at Hadkal, Ghodgeri, Modga, Hansihal, Gokák, Daddi, Konur, Tigdi, and Dhavaleshvar, are on the Ghatprabha; two, at Bhoj and Bedakihal, are on the Vedganga; two, at Pákhápur and Gokák, are on the Márkándiya; three, at Mángaon, Kovad, and Chinchani, are on the Támraparni; twelve, one at Jámboti, two at Khánápur, and one each at Parasyad, Mugutkhán-Hubli, Hansikatti, Turmuri, Sangoli, Vákund, Korvikop, Virápur, Yakundi, and Manoli, are on the Malprabha; and one at Ghotgevadi is on the Tilári. These ferries are all maintained at the expense of local funds and are yearly farmed the proceeds being credited to local funds. The revenues from the different ferries vary from 2s. to £130 (Rs. 1-1300). Of three ferries which yearly yield £50 (Rs. 500) and upwards, one is at Mugutkhán-Hubli, one at Manoli on the Malprabha, and one at Gokák on the Ghatprabha.

Of the thirty-eight public ferries sixteen have large ferry boats, eight have large canoes of which four are double canoes, thirteen are leather-baskets or *tokarás*, and one is an iron pan or *káil*. The boats and the canoes are made either by the executive engineer or by contractors at the cost of the local funds. They are of teak, mango, or *sávrí* wood. The leather-baskets or *tokarás* are circular and are built of bamboo sticks covered with leather. They are generally built at the places where they are kept, or at the nearest sub-divisional head-quarters station. It requires no great skill to build a coracle. The large iron pan or *káil* is made by a village blacksmith. The ferry boats vary in size from eight feet long by eight broad and one and a half deep, to thirty-nine feet long by fourteen broad and three deep. They carry a quarter to two tons (15 to 120 *mans*) of goods, fifteen to 200 passengers, and some of them two to eight carts. Their fees are $\frac{3}{4}$ d. to $\frac{1}{2}$ d. ($\frac{1}{2}$ - $\frac{1}{4}$ *anna*) for a man, 9d. to 1s. (6-8 *as.*) for a cart, and $1\frac{1}{2}$ d. (1 *anna*) for a horse buffalo or ox. The crew varies from four to sixteen on a boat, from one to ten on a canoe, and one to four on a basket. The crews are Bagdis, Bedars, Kabalgers or Thákurs, Kolis, Lingáyats, Maráthás, Mhárs, and Musalmáns. The boats cost £15 to £250 (Rs. 150-2500), the canoes £1 to £15 (Rs. 10-150), the leather boats £1 to £3 (Rs. 10-30), and the iron pans £1 10s. to £3 (Rs. 15-30). Besides these public ferries eleven ferries are kept by *inámdárs* or holders of alienated villages. All yield a yearly revenue of less than £50 (Rs. 500) except the

Chapter VI.

Trade.

ferry at Mánjri in Chikodi across the Krishna on the old Belgaum-Poona road, about fifty-five miles north-east of Belgaum. The private ferry boats vary in size from thirteen feet long by six broad and two deep, to twenty-eight feet long by eight broad and three deep. They carry $\frac{1}{2}$ to $1\frac{1}{2}$ tons (20 to 100 *mans*) of goods and fifty to 150 passengers; five of the eleven private ferries are charitable ferries and charge no tolls. The fees levied on the rest are $\frac{3}{4}$ d. ($\frac{1}{2}$ a.) for a passenger, and 1s. (8 as.) for a cart. They do not carry animals. In 1881-82 the total public ferry revenue amounted to £473 4s. (Rs. 4732).

Railway.

The system of railways which is being introduced into the Southern Marátha and Kánarese districts of Bombay includes the East Deccan or Hutgi-Gadag, the South Deccan or Bellári-Marmagaon by Dhárwár and Hubli, and the West Deccan or Poona-Londa by Miraj and Belgaum. The West Deccan railway strictly ends at Belgaum; the thirty-three miles from Belgaum to Londa are called the Belgaum branch. Of these the lines which will directly affect Belgaum are the Bellári-Marmagaon and the Poona-Londa railways.

The line of the Bellári-Marmagaon railway passes east and west through about twenty-one miles of Khánápur in the extreme south of the district. It begins at 165 $\frac{1}{2}$ miles west of Bellári and about ninety east of Marmagaon at the station of Alnávar, a small village on the road from Belgaum by Khánápur and Bidi to Haliyál in North Kánara. From Alnávar it passes almost west along a low narrow saddle of the Sid Pagoda range eight and three-quarters miles to Nágargali. At Nágargali, 174 $\frac{1}{2}$ miles from Bellári and about eighty from Marmagaon, the line crosses the road to Hulsí and Nandgad both places of some little importance, and ascends north-west till it reaches the top of the Sid Pagoda range near Suligali 2325 feet above the sea and only seventy feet below Dhárwár. The line then crosses the Punda river and passes along its left bank till it crosses the river Turva near Londa station about twelve miles west of Nágargali. Close beyond Londa, at 186 $\frac{1}{2}$ miles from Bellári and about sixty-eight from Marmagaon, the line passes out of Belgaum limits. The estimated cost of the twenty-one miles within Belgaum limits amounts to £102,393 (Rs. 16,23,930) or £7733 (Rs. 77,330) a mile.

The Poona-Londa, the beginning of which was sanctioned in December 1883, passes north and south about a hundred miles through Athni, Chikodi, Gokák, Belgaum, and Khánápur, almost the whole length of Belgaum. This line will start from Poona, pass south-east through 46 $\frac{1}{2}$ miles of the Poona district and 117 miles of the Sátára district, and enter Belgaum at Shedbal in west Athni 169 $\frac{1}{2}$ miles from Poona. From Shedbal it will pass south about seventy-two miles to Belgaum and from Belgaum about thirty-three miles further south to Londa in the extreme south of Khánápur where it will meet the Bellári-Marmagaon line. The cost of the line between Poona and Belgaum is estimated at £8274 (Rs. 82,740) a mile or a total expenditure within Belgaum limits of £827,400 (Rs. 82,74,000). The works will be begun in 1884-85; they are expected to be completed in 1889. After Miraj 159 miles south-east of Poona the line passes eighteen miles east to secure a good crossing over the

Chapter VI.

Trade.

Railways.

Krishna. It enters Belgaum limits near Shedbal station about six miles north-west of the Krishna. From the Krishna it passes south-west sixty-six miles to Belgaum by Kudchi three miles, Nágral eleven miles, Chikodi Road near Kabur eight miles, Gokák Road near Sirdan ten miles, Páhhápúr twelve miles, Khángáon twelve miles, and Belgaum ten miles. Except about four miles north-east of Belgaum, where the line turns south-east to avoid some hills and rough ground, the whole sixty-two and a half miles are practically straight. The limiting gradient is one in 100 and seventeen and a half miles of the section are level. There is no curve with a smaller radius than 600 feet. The only large village passed between the Krishna and Belgaum is Páhhápúr, about twenty miles north-east of Belgaum with about 1500 people. The chief bridge is across the Krishna about 175 miles from Poona and three miles north-west of Gundigvar. The Krishna bridge has eleven spans of 150 feet girders, that is a total length of about 550 yards. Like the other big bridges on the Southern Marátha railways the Krishna bridge has breadth enough to allow a cartway to run alongside of the line. The piers are of masonry, those in the north founded on rock, those in the south founded on hard *muram*. The bridge is estimated to cost £78,500 (Rs. 7,35,000); of this the iron work in the girder is estimated to cost £23,600 (Rs. 2,36,000) and the erecting of girders £8500 (Rs. 85,000). The other large bridges are, Bekerí Bridge at 185 miles from Poona, with five spans of forty feet arches and an estimated cost of £3331 (Rs. 33,310); the Jágñur at 202 miles with eight spans of forty feet arches and a cost of £4841 (Rs. 48,410); the Ghatprabha at 208 miles with sixteen spans of fifty feet arches and a cost of £13,063 (Rs. 1,30,630); the Márkándiya at 221 miles with seven spans of fifty feet arches and a cost of £7076 (Rs. 70,760); the Bellári No. 1 at 225 miles with five spans of fifty feet arches at a cost of £5572 (Rs. 55,720); the Bellári No. 2 at 231 miles with four spans of forty feet arches at a cost of £2216 (Rs. 22,160). All these bridges have rock foundations for the piers, the piers of the Márkándiya and Bellári bridges resting on sandstone and the others on trap. For the section seven third class stations and one second class station are proposed, that is an average of one station to every nine miles of line. The details are, Shedbal at 169 miles from Poona, Kudchi 179 miles, Nágral 190 miles, Chikodi Road 198 miles, Gokák Road 208 miles, Páhhápúr 220 miles, Khángáon 232 miles, and Belgaum 242 miles. The exact position of Belgaum station has not been fixed; it will depend chiefly on military considerations. As this section will form an integral part of the Southern Marátha Railway, the permanent-way, rolling stock, stations, and fencing will be similar to those in use on the rest of the company's line. From Belgaum the line runs south thirty-three miles and joins the South Deccan section near Londa station 186½ miles west of Bellári. From Belgaum the line runs through cultivated ground about seven miles straight south to Desur. From Desur, where a high ridge is crossed, the line passes through forest falling 286 feet down a rather difficult hill slope seven and a quarter miles to Khánápúr on the Malprabha. In this descent the line curves to the east and has a limiting gradient of one in 100. The Malprabha will be crossed near Khánápúr by a

Chapter VI.

Trade.

Railways.

bridge of eight fifty-foot arches whose piers will probably be founded on granite. From the Malprabha the line runs through thick forest eight miles straight south to Gunji. From Gunji, still through thick forest, the line passes over a *kotal* or saddle near Kirvale and then gradually descends till it joins the South Deccan railway half a mile east of Londa station. Three third class stations are proposed, at Desur 249 miles from Poona and about seven miles south of Belgaum, Khánápur 258 miles from Poona and about sixteen miles from Belgaum, and at Gunji 266 miles from Poona and about twenty-four miles from Belgaum. Over the whole line there is abundance of granite and no scarcity of water. The only places at which much traffic is likely to be received are Belgaum and Khánápur. To help traffic the Kaládgi-Belgaum and the Bidi-Khánápur roads want improving. The cost of the thirty-three miles from Belgaum to Londa is estimated at £230,000 (Rs. 23,00,000) or £6970 (Rs. 69,700) a mile.

Belgaum forms part of the Southern Marátha or Bombay Karnátak postal division. Besides the chief receiving and disbursing office at Belgaum it contains two town sub-offices, twenty-seven sub-offices, and twelve village post offices. Of the twenty-seven sub-offices and twelve village offices, seventeen sub and nine village offices are within British limits, and ten sub and three village offices lie in the Bombay Karnátak states. All are supervised by the superintendent of post offices, Bombay Karnátak division, and are paid by the Belgaum disbursing office. The chief disbursing office at Belgaum is in charge of a postmaster who draws a yearly salary of £180 (Rs. 1800) rising to £240 (Rs. 2400) in five years. The two town sub-offices, one in the city of Belgaum the other between Belgaum and Sháhápur, and of the twenty-seven sub-offices the seventeen within British limits, at Athni, Báil-Hongal, Chándgad, Chikodi, Gokák, Gokák Canal, Hukeri, Khánápur, Kittur, Mugutkhán Hubli, Murgod, Nandgad, Nipáni, Sampgaon, Šankeshvar, Saundatti, and Yamkanmardi, and the ten in state limits, at Gad-Hinglaj, Gargoti, Jamkhandi, Katkol, Mahálingpur, Mudhol, Rabkavi, Rámdurg, Ráybág, and Terdal, are in charge of sub-postmasters drawing £9 12s. to £36 (Rs. 96-360) a year. Of the twelve village post offices the nine within British limits are at Bágevádi, Garl-Husur, Hera, Manoli, Nesargi, Páchhápúr, Vantundri, Yádvád, and Yak-kundi, and the three in state limits are at Ajra, Angol, and Torgal. Of these twelve, five are in charge of village postmasters, drawing £9 12s. (Rs. 96) a year; five are in charge of village schoolmasters who in addition to their pay as schoolmasters receive yearly allowances varying from £2 8s. to £4 16s. (Rs. 24-48); and two are in charge of local residents who are yearly paid £2 8s. (Rs. 24) in one village and £4 16s. (Rs. 48) in the other. At the towns and villages which have either sub or village post offices, letters are delivered by twenty-seven postmen who are yearly paid £7 4s. to £12 (Rs. 72-120), and at the villages without post offices by fifty-four village postmen who are yearly paid £9 12s. to £12 (Rs. 96-120). Of the fifty-four village postmen nineteen are paid from Imperial and thirty-five from provincial funds. Besides by these postmen, letters are delivered in some places by postal runners who receive yearly from £1 4s. to

Post Offices.